

Charging and Fueling Infrastructure (CFI) Grant Program

Update on Statewide EV Charging Planning and Opportunities

Efficiency Maine and MaineDOT

April 11, 2023





Charging and Fueling Infrastructure (CFI) Grant Program

CFI Program Details

Background:

- Discretionary grant program established by Bipartisan Infrastructure Law (BIL)
- \$2.5 billion over 5 years
- Two categories:
 - Community charging
 - Corridor charging
- Eligible applicants include:
 - States
 - Metropolitan planning organizations
 - Local governments
 - Special purpose districts or public authorities with a transportation function
 - Indian tribes
 - U.S. Territories
 - State or local authorities with ownership of publicly accessible transportation facilities (applies to Community Program only)

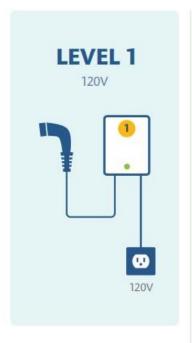
Maine's Plan for CFI

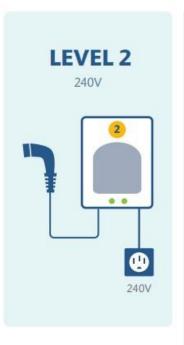
- MaineDOT will submit a grant application in May 2023 to install EV chargers statewide
- Allow Maine to receive <u>at least</u> its fair share (min. \$12.5 million over 5 years)
 - Maine plans to apply for \$10 million per year
- Fund priorities outlined in Maine Plan for EV Infrastructure Deployment
- Focus on equity to serve rural drivers and those lacking access to home charging
- Funding to be rolled out to communities in a series of funding opportunities through Efficiency Maine on behalf of MaineDOT

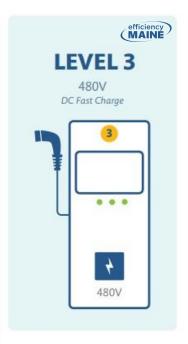
Open Now: Request for Information (RFI)

Responses will shape Maine's CFI application and siting of EV chargers. Respond at https://www.efficiencymaine.com/opportunities/

Types of EV Charging











HOME

USAGE



HOME COMMERCIAL

CHARGE TIME

Adds 25 miles per hour of charge*

Charge from 20-80% in 7 hours

USAGE



COMMERCIAL

CHARGE TIME

Adds 100-200+ miles per 30 minutes of charge*

Charge from 20-80% in 15-30 minutes

CHARGE TIME

Adds 5 miles per hour of charge*

Charge from 20-80% in 20+ hours

Where Do EV Drivers Need Charging?

1. Along Major Travel Corridors

- For drivers on longer trips (>200 miles)
- Must be close to main travel routes and offer amenities, ample capacity, and fast charging speeds

2. At Multi-Unit Dwellings (MUD)

For those who live in apartments/condos and cannot easily install their own home chargers

3. At Work

Another option for drivers who don't have access to home charging

4. "Opportunity Charging"

- Convenient charging at locations where people already spend 1.5 or more hours at a time (for level 2 charging)
- Examples include retail, hotels, restaurants, downtowns, recreational facilities, event venues, hospitals, etc.
- Allows drivers to charge while going about their daily business, or visiting a destination

5. <u>At Home</u>

- Most convenient and affordable option
- According to a 2022 Natural Resources Council of Maine survey, 90% of Maine EV drivers charge primarily at home

Considerations for Siting EV Chargers

1. <u>Drivers' Needs</u>

- Consider what drivers need and where they are likely to charge
- Are the chargers in a location where they will be used?
 - o To serve through-travelers, should be within 1 mile of route
 - o To serve locals and tourists, should be in a place where they are already likely to spend time

2. Operating Costs

- Demand charges can be significant, can be \$500+ per month for a site with 4 level 2 ports and \$2,000+ per month for DCFC
- Level 2 costs less than DCFC, but level 2 costs can still be significant
- More traffic = easier to recover operating costs

3. Requirements of CFI Program

- At least 4 ports per site
- Minimum power level of 6 kilowatts (kW) for level 2 chargers
- Open to the public
- 20% non-federal match required
- Maintain annual uptime of 97% or greater

Priority Locations for Maine CFI Grant Application

1. Communities with a high concentration of MUDs

- Prioritize top 8 towns in the state with the highest number of multifamily housing units
 - Portland, Lewiston, Bangor, South Portland, Auburn, Biddeford, Augusta, Westbrook

2. Regional Service Centers

- Service center towns not included in the MUD category above
- Prioritize service centers serving economically disadvantaged communities

3. Alternative Fuel Corridors (AFC)

DC fast charging sites on AFC that will not be funded by the NEVI Formula program

4. <u>Large Workplaces</u>

Workplaces with a large hourly/retail workforce

5. <u>Libraries and Other Municipal Buildings</u>

- WIFI available in charging spaces
- Open 5+ days per week

Maine's Regional **Service Centers Regional Service Centers** updated using 2010 US Census Data Municipality Urban Compact Area Projection: UTM, NAD83, Zone 19, Meters Census Designated Place

Regional Service Centers

Important centers of economic activity serving rural Maine residents.

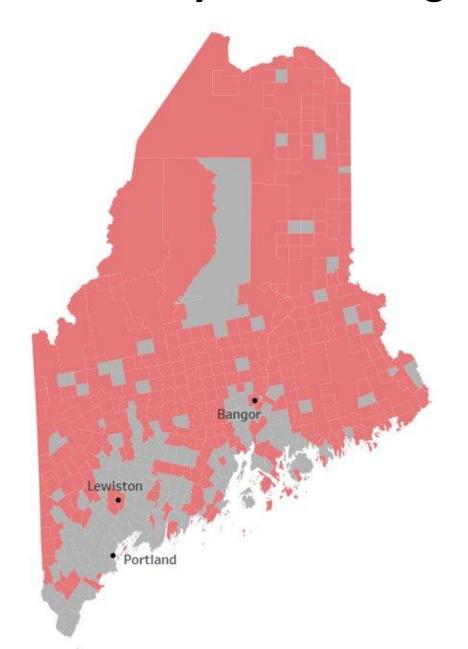
"Where is your nearest hospital located? Where do you work? Where do you bring the kids to buy school clothes, visit a museum or swim in an indoor pool?"

https://www.maine.gov/dacf/municipalplanning/service_cente
rs.shtml

Service center designation based on:

- Employment center index
- Trade center index
- Service center index
- Housing services index

Economically Disadvantaged Communities



 Towns with median household income lower than 100% of Maine's State Median Income (\$59,489)

	Percent of population
Under Threshold*	47%
Over Threshold	53%

^{*}includes towns and territories with no data



Maine's EV Infrastructure Plan

Maine Plan for EV Infrastructure Deployment



MAINE PLAN FOR ELECTRIC VEHICLE INFRASTRUCTURE DEPLOYMENT (MAINE PEVID)

Submitted to the Federal Highway Administration July 2022

Developed by MaineDOT, Efficiency Maine, Governor's Office of Policy Innovation and the Future, Governor's Energy Office, Maine DEP

EV Charging Priorities:

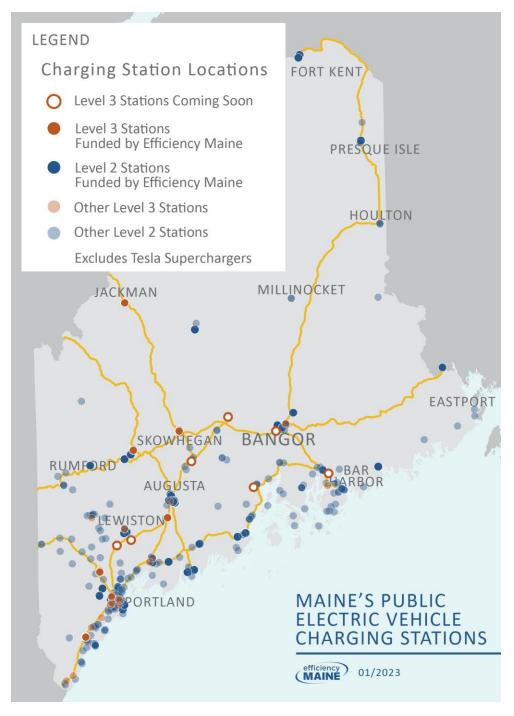
- Target distance of 50 miles or less between DC fast chargers along key travel routes in Maine.
- Destinations for tourism and local traffic that will need additional EV charging capacity, regardless of corridor status.
- Community charging in areas with a high concentration of multi-unit dwellings.

Read full plan here:

https://www.efficiencymaine.com/docs/pevid-2022.pdf

Past EV Charging Activities

- 1. Phase 1 Expand Maine's EV Fast-Charging Network
 - 7 sites/20 DCFC ports in southern and western Maine
- 2. Phase 2 Expand Publicly Available Level 2 Charging
 - 188 ports at public places, workplaces, and MUDs throughout the state
- 3. Phase 3 Extend Maine's EV Fast-Charging Network
 - 7 sites/14 DCFC ports in Auburn, Lewiston, Bangor,
 Fairfield, Newport, Ellsworth, and Belfast
- 4. Rural Level 2 Community Charging
 - 127 ports awarded in all 16 counties
- 5. Phase 4 DC Fast Charging in Aroostook and Washington Counties
 - 4 projects underway in Aroostook and Washington
 Counties additional sites to be announced
- 6. Phase 5 Fill Gaps on Coastal Route 1 and High-Traffic Areas
 - "Maine Phase 5" RFP closing on June 22



Goals

- Strengthen the Maine economy by reducing Maine drivers' energy costs for transportation and by promoting tourism from neighboring provinces and states;
- Advance Maine's progress toward reducing emissions of carbon dioxide from vehicles traveling Maine roads.

Objectives

- Facilitate market transformation that will, consistent with the targets of the State climate
 action plan, increase the use of vehicles operating on electricity and displacement of highercarbon fuels;
- 2. Expand the network of <u>DC Fast chargers</u> (DCFC) available to serve EV drivers who require expedited charging while away from their home or place of business;
- 3. Promote deployment of Level 2 chargers to serve overnight or extended duration charging;
- Assure equitable access to EV charging across geographic areas, sectors of the economy, and household income levels;
- 5. Attract and complement funding from federal, corporate, or national initiatives.

EV CHARGING PRIORITY CATEGORIES (not sequential)

Category 1: Extending Lines and Filling Gaps w/High-Speed Charging (DCFC)	Category 2: On-Street/Lot Parking	Category 3: Destination Charging
Serving drivers needing expedited charging while away from their home or place of business, providing full coverage across the state	Serving tenants, condos, & others lacking off-street parking	Serving day-trippers, overnight visitors, tourists either off the main roads or where extra capacity is needed.
A. Alternative Fuel Corridors	A. DCFC – where overnight charging is not practical, esp. providing access for LMI residents	A. DCFC - very highly trafficked, short stay, or day-trippers
B. Other priority corridors	B. L2 - for overnight charging, esp. LMI residents	B. L2 - longer stay or overnight
C. Adding capacity in high-traffic areas	C. L2 - for workplace charging	

Read full plan here: https://www.efficiencymaine.com/docs/pevid-2022.pdf

MaineDOT 🏙 Piscataguis Priority EV Charging Corridors Gap Analysis FHWA Alternative Fuel EV Corridors EV - Corridor Pending New Corridors to Designate in 2022 Additional Priority Corridors Further than 25 Miles from L3 Charger

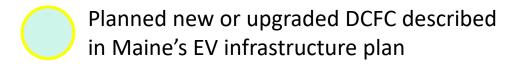
Planned DCFC Locations

Fiscal Year 2023

Focus Areas:

- Aroostook and Washington Counties
- I-95 Bangor to Houlton, Augusta, Bangor, US Route 1

FY23 DCFC Ports Added: 55



MaineDOT 🏙 Piscatacais Priority EV Charging Corridors Gap Analysis FHWA Alternative Fuel EV Corridors EV - Corridor Ready EV - Corridor Pending New Corridors to Designate in 2022 Additional Priority Corridors Further than 25 Miles from L3 Charger

Planned DCFC Locations

Fiscal Year 2024

Focus Areas:

- Destinations
- Other Priority Corridors
- New NEVI stations on AFC
- Upgrade existing stations on AFC
- Community charging in densely populated areas and key destinations

FY24 DCFC Ports Added: 54

Piscata Priority EV Charging Corridors Gap Analysis FHWA Alternative Fuel EV Corridors EV - Corridor Ready EV - Corridor Pending New Corridors to Designate in 2022 Additional Priority Corridors Towns Further than 25 Miles from L3 Charger

Planned DCFC Locations Fiscal Year 2025

Focus Areas:

- New NEVI stations on AFC
- Upgrade existing stations on AFC
- Community charging in densely populated areas and key destinations

FY25 DCFC Ports Added: 26

MaineDOT Piscatace Priority EV Charging Corridors Gap Analysis **FHWA Alternative Fuel EV Corridors DCFC Stations Under** EV - Corridor Ready EV - Corridor Pending Existing Universal DCFC Stations New Corridors to Designate in 2022 Additional Priority Corridors Towns Further than 25 Miles from L3 Charger

Planned DCFC Locations Fiscal Year 2026

Focus Areas

Upgrade existing stations on AFC

FY26 DCFC Ports Added: 10



EV Charging Funding Opportunities

Available Now – Incentives for Public Level 2 EV Charging



- Funding Opportunity Notice (FON) 002-2023
 - Local governments and public libraries:
 8,000 per port up to 90% of project
 cost
 - Businesses and other organizations:
 \$5,000 per port up to 80% of project cost
 - In publicly accessible locations in rural areas in Cumberland and York counties
 - Application deadline: June 30, 2023

Learn more:

efficiencymaine.com/opportunities



Upcoming Webinars

Webinar	Date
Rural Level 2 Electric Vehicle Charging FON for Cumberland and York Counties	April 13th from 8-9am, click to register here.
Phase 4-2 DC Fast Charging Bidder's Informational Webinar #2	May 9th from 8-9:30am, click to register here.
Phase 5 DC Fast Charging Bidder's Informational Webinar #2	May 10th from 10-11:30am, click to register here.

For more information about funding opportunities visit our opportunities page.



Thank You!

For questions about EV charging funding opportunities:

info@efficiencymaine.com

(866) 376-2463

- Subscribe to EV Notices Email List: <u>efficiencymaine.com/about/newsletter-signup/</u>
- Funding opportunities posted at: <u>efficiencymaine.com/opportunities/</u>
- Request for Information: https://www.efficiencymaine.com/rfi-charging-and-fueling-infrastructure-cfi-statewide-grant-application-for-ev-charging/

For questions about state EV infrastructure plan:

Taylor.S.Labrecque@maine.gov





